

AMENDMENTS TO THE DRAWINGS:

A replacement Sheet is submitted for Figure 10. The legend has been changed to "Encapsulating-Fullerene".

REMARKS

The application has been amended to place it in condition for allowance at the time of the next Official Action.

A substitute specification is included in the Appendix that corrects several translations errors. That is, the term "containing-fullerene" is changed to "encapsulating-fullerene" to more accurately reflect the fullerene molecule, for example, C₆₀ shown in Figure 10 that encapsulates, for example, an Na or K ion.

Similar changes are made for "encapsulating-nanotube" and "alkali-metal-encapsulating fullerene" and their variants.

In addition, the term "containment target ion" is changed to "encapsulation target ion" to clarify that the target ion is targeted for encapsulation.

Further, the term "implantation" is changed to "irradiation" to clarify that the ions are irradiated onto the surface of the substrate and are not implanted into a semiconductor crystal lattice as is implied by the term "implantation"(see original paragraph [0006] and original claim 3).

A verified English translation including a coversheet indicating the original translation error is submitted herewith in support of the changes. Accordingly, the above changes are believed not to introduce new matter.

A replacement drawing is submitted for Figure 10 changing the label "Containing-Fullerene" to "Encapsulating-Fullerene" consistent with the above-noted changes to the specification. The above change is the only change and is believed not to introduce new matter.

Claims 3-7 and 9-17 are pending in the application.

Claims 3-6, 9, 12 and 17 were rejected under 35 USC §103(a) as being unpatentable over MILEY et al. 6,171,451. That rejection is respectfully traversed.

The position set forth in the Official Action is that column 10, lines 10-20 of MILEY discloses producing fullerenes.

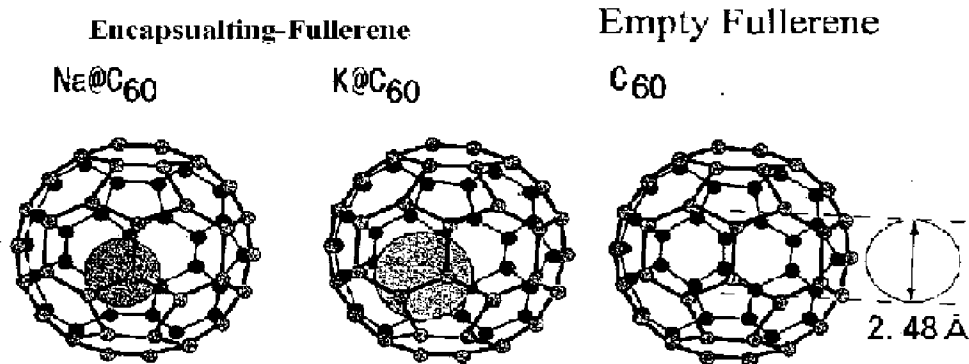
Although this characterization of MILEY is correct, nevertheless, MILEY does not meet the present claims.

The previously recited: "containing-fullerene or containing-nanotube" is amended by the present amendment to recite: "encapsulating-fullerene or encapsulating-nanotube". This change together with the recited "said fullerene molecules or nanotube molecules to encapsulate said encapsulation target ions" of claim 3 not only clarifies that fullerene is produced, but also clarifies that the fullerene encapsulates the target ion.

By way of example, Figure 10 of the present application, reproduced below, in part, shows an empty fullerene molecule and an encapsulating-fullerene molecule. That is, a

fullerene molecule that is encapsulating a target ion such as K or Na.

FIG.10 (in part)



By contrast, MILEY uses inertial electrostatic confinement (IEC) to produce fullerene from carbon-based gases having a high chemical reactivity. See column 4, lines 61-65. Thus, in MILEY, the end product is the fullerene. MILEY never discloses the use of fullerenes to produce encapsulating-fullerenes that encapsulate a target ion.

Accordingly, MILEY does not meet claim 3. Claim 6 includes a similar feature and the analysis above regarding claim 3 also applies to claim 6. The dependent claims are believed to be patentable at least for depending from an allowable independent claim.

Claims 7 and 13-16 were rejected under 35 USC §103(a) over MILEY et al. in view of FETHERSTON et al. 5,693,376. That rejection is respectfully traversed.

FETHERSTON is only cited with respect to a magnetic field generation means. FETHERSTON does not overcome the

shortcomings of MILEY set forth above with respect to claim 6. Since claim 7 depends from claim 6 and further defines the invention, claim 7 is believed to be patentable at least for depending from an allowable independent claim.

Claims 13-16 are directed to apparatuses for producing encapsulating-fullerene or encapsulating-nanotubes including means for generating the target ions to be encapsulated. The apparatuses also include a substrate having fullerene or nanotubes deposited thereon that encapsulates the target ions to produce encapsulating-fullerene or encapsulating-nanotubes.

As set forth above, MILEY never produces encapsulating-fullerenes that encapsulate a target ion. Thus, MILEY does not disclose the apparatus that produces encapsulating-fullerenes.

FETHERSTON does not overcome the shortcomings of MILEY and thus, the proposed combination of references does not meet claims 13-16.

Claim 10 was rejected under 35 USC §103(a) over MILEY et al. in view of TAKEHARA et al. US Publication No. 2005/0129607. That rejection is respectfully traversed.

TAKEHARA is only cited with respect to features of dependent claim 10. TAKEHARA does not overcome the shortcomings of MILEY set forth above with respect to claim 6. Since claim 10 depends from claim 6 and further defines the invention, claim 10 is believed to be patentable at least for depending from an allowable independent claim.

Claim 11 was rejected under 35 USC §103(a) over MILEY et al. in view of LIU et al. (Chemical Physics Letters, 331 (2000), pages 31-34). That rejection is respectfully traversed.

LIU is only cited with respect to features of dependent claim 11. LIU does not overcome the shortcomings of MILEY set forth above with respect to claim 3. Since claim 11 depends from claim 3 and further defines the invention, claim 11 is believed to be patentable at least for depending from an allowable independent claim.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future submissions, to charge any deficiency or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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Appendix:

The Appendix includes the following items:

- Replacement Sheet for Figure 10
- Clean and marked-up versions of the substitute specification
- New Abstract
- Corrected and Verified English translation of PCT /JP2005/005016, which was filed on March 18, 2005